Amendments to the Drawings

The attached replacement sheet includes amended FIG. 2 in accordance with the requirement set forth in the Office Action.

Attachment: Replacement sheet (1)

GMC3143

3 of 14

REMARKS/ARGUMENTS

Subsequent to the subject Office Action, claims 1-31 are pending in the application.

The drawings were objected to, particularly with respect to FIG. 2. Applicant has submitted a Replacement Sheet containing corrections to FIG. 2 to obviate the specific objections.

Claims 5-7, 16-24 and 29-31 were objected to for various informalities. Applicant has amended claims 5, 16, 23 and 29 as suggested in the Office Action to address the underlying reasons for objection to claims 5-7, 16-24 and 29-31.

Claims 9-24 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claims 8, 9, 15, 20 and 21 to address these 35 U.S.C. 112, paragraph 2 rejections. Applicant believes that all claims are now in compliance with 35 U.S.C. 112, second paragraph.

Claims 1, 8, 25 and 26 were rejected under 35 U.S.C. 102(b) as being anticipated by Hac et al. (6,035,251). Claims 1, 8, 25 and 26 were rejected under 35 U.S.C. 102(b) as being anticipated by Nishizaki et al. (6,415,215). Claims 1-4, 8-12 and 25 were rejected under 35 U.S.C. 102(e) as being anticipated by Adachi (6,615,124). And, claims 1, 8, 25 and 26 were rejected under 35 U.S.C. 102(e) as being anticipated by Kim (6,842,683). Claims 5-7, 13-24 and 27-31 were indicated as distinguishable over the prior art and assumed by Applicant to be allowable thereover. Applicant appreciates the acknowledgement of allowable subject matter in claims 5-7, 13-24 and 27-31. However, Applicant respectfully traverses all anticipation rejections of claims 1-4, 8-12, 25 and 26 as further detailed in the remarks herein below.

Applicant's attorney has carefully studied each of the subject anticipation rejections and the references relied upon. In each of the separately detailed rejections (paragraphs 7-10), the Office Action in rejecting the independent claims 1, 8 and 25 attempts to equate "calculating an estimated steering behavior" language

GMC3143

12 of 14

of the rejected claims with portions of each of the individual references cited. Applicant respectfully points out that with respect to claim 25, no such recitation of "calculating an estimated steering behavior" language exists.

Applicant's invention, as exemplified for example, by independent claims 1, 8 and 25 recite tasks or structure related to a "steering behavior indicator." This steering behavior indicator is concerned with what is referred to in the art as the steering behavior indicator and conventionally given the shorthand designation K_μ. The steering behavior indicator is part of the general steering equation, also well known in the art. Conventional yaw control systems make use of the steering behavior indicator in conjunction with the general steering equation. And, these conventional yaw controls are based on a fixed value or plurality of values for the steering behavior indicator (i.e. vehicle calibrations). In contradistinction, the present invention provides accurate calculation of steering behavior indicator in real-time, hence, the value of steering behavior indicator is constantly adjusted for changes in the dynamic state, including changes related to changes in the vehicle and components thereof, changes in the dynamic forces on the vehicle associated with vehicle motion and changes in the operating environment. (see e.g. para. [0026]).

The cited references all related to vehicle dynamics. However, none anticipates the present invention. Exemplary of this shortcoming, the cited portion of Hac et al. at col 3, ll. 13-21 merely discloses conventional yaw comparisons of actual versus desired. And, nowhere in Hac et al. is Applicant's invention, including the aspects of calculation or determination of the steering behavior indicator taught or suggested. Similarly, the cited portion of Nishizaki et al. at col 18, ll. 1-10 merely discloses conventional yaw error and control. Nowhere in Nishizawa et al. is Applicant's invention, including the aspects of calculation or determination of the steering behavior indicator taught or suggested. Likewise, the cited portion of Adachi at col. 4 l. 36 to col 5, l. 3 merely discloses a yaw rate control. (Notice also Fig. 2 which follows the cited portion includes only conventional inputs 1-2, 1-1 and 1-3). There is no teaching or suggestion within Nishizawa et al. of Applicant's

GMC3143

invention, including the aspects of calculation or determination of the steering behavior indicator. Finally, with respect to the cited portion of Kim (i.e. reference numeral (26)), an understeer/oversteer determining unit is merely disclosed which functions in response to a variety of inputs. Applicant cannot identify any portion of Kim , however, that teaches or suggests Applicant's invention, including the aspects of calculation or determination of the steering behavior indicator. A form of the steering behavior indicator is shown in equation [6] of Kim but there is no portion of Kim that anticipates Applicant's claims.

In view of the above, Applicant believes that all independent claims 1, 8 and 25 are patentably distinguishable over the cited references. The remaining rejected claims 2-4, 9-12 and 26, each providing additional limitations to one of the independent claims, are likewise patentably distinguishable over the cited references. Applicant therefore respectfully requests that all pending claims be allowed and allowed to proceed to issue.

If the Examiner has any questions regarding the contents of the present response he may contact Applicant's attorney at the phone number appearing below.

Any fees associated with this response may be charged to General Motors Deposit Account No. 07-0960.

Respectfully submitted,

Vincent A. Cichosz
Registration No. 35,844
Telephone: (248) 676-2798